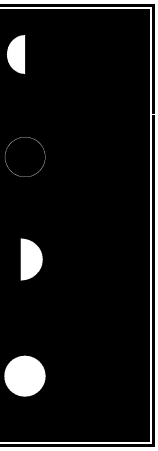
March Skies over the Pinnacles

March 2021

March's four principal phases of the moon

March 6	Last Quarter	
March 13	New Moon	
March 21	First Quarter	
March 28	Full Moon	

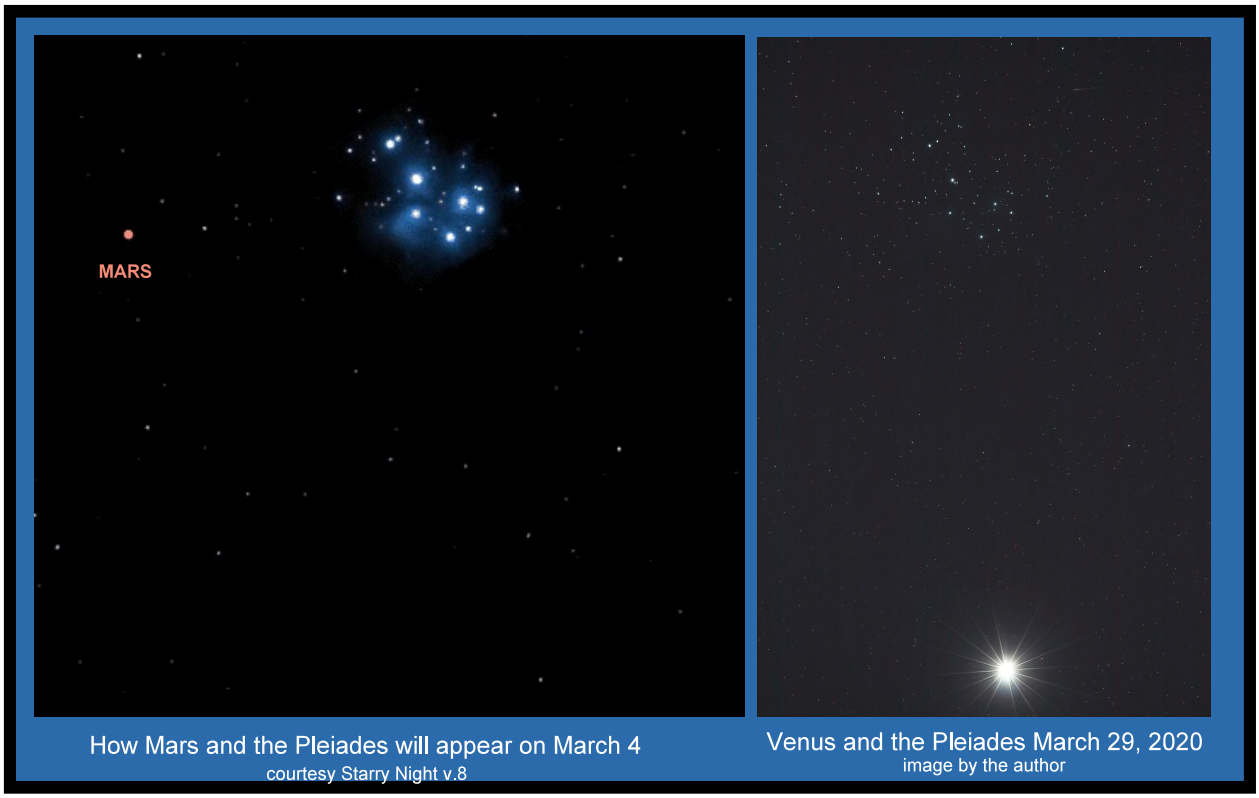
Welcome Spring

In 1971 George Harrison penned the lyrics "*Little Darling, it's been a long cold lonely winter.*" The song was a Beatle hit called "Here Comes the Sun". On March 20, of this year, spring officially arrives in the northern hemisphere of our planet. On that day the Sun can be seen directly overhead at noon if you happen to be standing on the equator. Also on that day we have the same amount of daytime as night time. We'll have longer periods of daylight than of night time until September 22. The day that will see most daylight time will be June 20, the summer solstice. We can thank our little Earth for having an axis tilt of about 23 degrees to its orbital plane for that. But I can put it more simply than that. Yay!

March will bring with it more things in the sky to see. My top event for the month actually runs from the end of February through about March 11. You see, the orbits of all of the Sun's family of planets lie about on the same plane, like a dinner plate. This means that the planets we see in the night sky will always be found against the same background of stars. One of the prettiest little patches of sky is occupied by a young family of stars called the Pleiades. It takes light 444 years to reach our eyes on Earth. Because they happen to lie in the same direction as the plane of our solar system, they appear to be 'visited' by the planets now and again. Now, to say that Mars is near the Pleiades is like saying that the chicken wing you threw at quarterback Patrick Mahomes on TV actually ever really got near him!

You might recall that about this time last year I was all excited about another planet, Venus. That was because this planet was going to appear very close to the same patch of celestial real estate-the Pleiades. Venus appeared to get much closer than Mars will on March 4. But it was April 3, 2020 that Venus appeared to be one of the Pleiades family!

Below is a comparison of Mars at its closest apparent approach to the Pleiades and a picture I took last year on March 29, when Venus appeared to be about as far away from the Pleiades as Mars will appear this month. The image at left is computer generated.

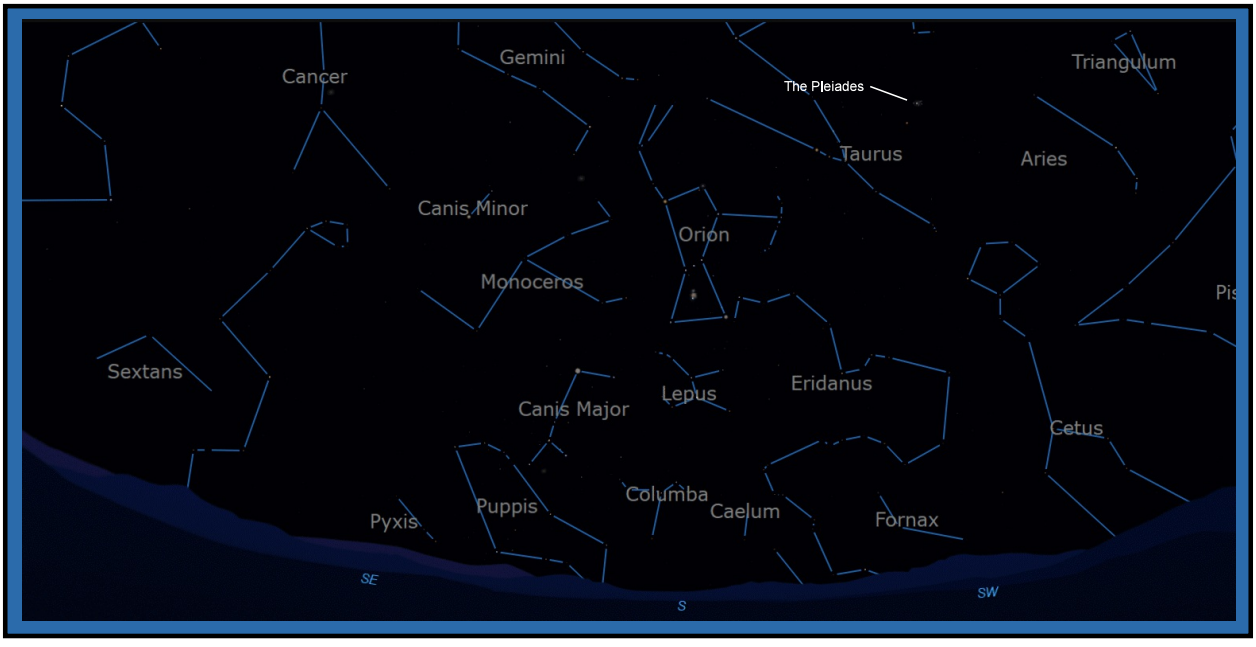


How Mars and the Pleiades will appear on March 4
courtesy Starry Night v.8

Venus and the Pleiades March 29, 2020
image by the author

Grab your binoculars or small telescope and go outside in the evening anytime between February 28 and March 11 to catch this spectacular and beautiful event. Plan to take pictures? We'd love to see them. Maybe we'll put them in next month's article.

Here's a finder chart for the Pleiades.



In March the constellation, Orion, will be standing straight up due south. Look up and to the right of Orion and find a V-shaped set of stars with one bright red star. That's called the Hyades and represents the face of Taurus the Bull. Now keep going in the same direction and find a tight little grouping that sort of looks like a dipper. That's the Pleiades and orange Mars will be just to the left. Happy stargazing!

What Do Astronomers Do?

Now that I'm retired I might be asked about myself I usually respond that I am an amateur astronomer, with emphasis on ***amateur***. An amateur can be described as someone who participates in some activity for the love of it. That's me.

Do you remember the 1994 movie, *Forrest Gump*, starring Tom Hanks? The story is about a simple, kind man, played by Hanks, who always seems to find himself at the center of momentous events. I don't pretend to have the purity of spirit of Forrest but my hobby has, on occasion, offered me glimpses into the world of cutting-edge professional astronomy. A high school friend named John became a professional astronomer. He invited some of his amateur astronomer friends along to visit him while he was completing his Ph.D. in astrophysics at the California Institute of Technology. Some years later he worked at the Space Science Telescope Institute. These are the folks in Baltimore who control the Hubble Space Telescope.

While at Caltech, John was gathering data for his doctoral thesis using the 200-inch telescope on Palomar Mountain, a few hours from San Diego. For 50 years this telescope was the largest telescope in the world. What a thrill it was to get an insider's tour of this great instrument of astronomy! We spent three magical nights there! Here's the Forrest Gump part. John's advisor was Dr. Jim Gunn

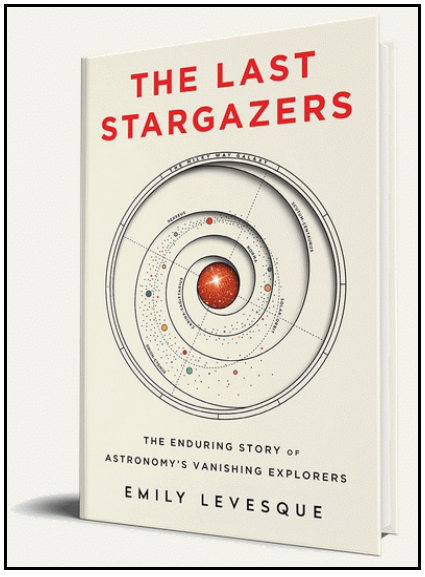
Seen above, Dr. Gunn is credited with helping us understand what the universe was made of early in its nearly 14 billion year history. He was also unique in that he built many of the instruments used to winnow out the secrets of the Cosmos. It was while we were on Palomar that Dr. Gunn first tested his newest camera using the 200-inch telescope. That very camera design was installed on the Hubble Space Telescope and was used to produce many famous images like the one at right. Our visit to Palomar was in 1981.

We sometimes entertained ourselves by making use of the pool table located in the building that houses the 200-inch telescope. Local lore claims that Albert Einstein also played pool on this table. I'm the one attempting the shot. From left to right: My wife, Reda, John the astronomer and our friend, Doug.

Fifteen years later, we attended John's wedding in Maryland while he was working at the Space Telescope Science Institute. This was 1994, the time of the famous crash of Comet Shoemaker-Levy-9 into the planet Jupiter. During a tour of the facility we were treated to this just-received new image on the control room monitor.

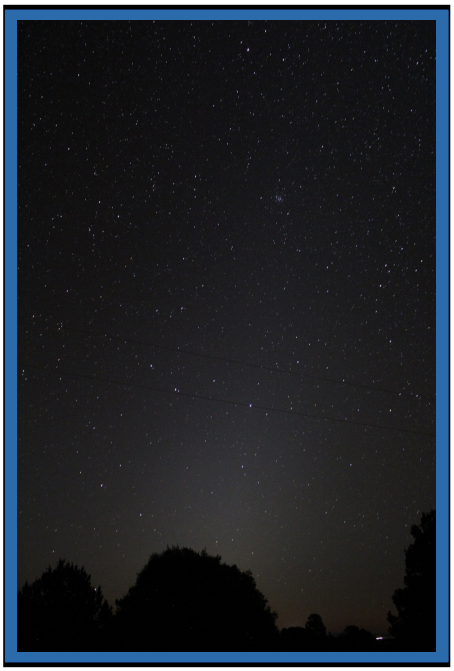
Many people have a funny idea if what scientists are like. During those fortunate times I have been around professional astronomers I was surrounded by driven, friendly and funny individuals who learned not to take themselves too seriously. There was never a white lab coat, clipboard or pair of thick glasses in sight! In fact, the term "astronomer" is a little old-fashioned. The present study of the Cosmos is carried out mostly by the astrophysicist. This is someone who seeks to discover and test our understanding of the laws of physics by observing and measuring the goings-on in space.

If you'd like an real insider's picture of what it really is like to be a professional astronomer, I recommend you pick up a copy of Emily Levesque's new book The Last Stargazers from Sourcebooks.com.



Attractions in March

March 1 If it is very clear and you find yourself far away from city lights try to spot the elusive Zodiacal Light. This faint glow is best seen in early spring and autumn. It will appear as a faint cone of light seen widest toward the place where the sun has set (or will rise) and tapers along the constellations of the Zodiac. Here's a picture I took of the Zodiacal Light two years ago in New Mexico.



March 4 The red planet Mars will be very close to the beautiful star cluster known as the Pleiades, the constellation Taurus. See the article above.

March 5 Get up before the Sun and catch the planets Mercury and Jupiter sooo close together. Also look for Saturn to the left.

March 18 Check out the pretty grouping of the crescent Moon, Mars, the Pleiades and the star Aldebaran at dusk.

March 20 Springs begins!

March 23 Watch as the Moon approaches the beautiful Beehive Cluster in Cancer.